Determination: RCRA Closure never completed

PA/VSI Or RFA FILE REVIEW CHECKLIST

Facility Name: North Chicago Inc. (Fansteel Inc)

EPA ID: ILD 005 130 786__ Address: One Tantalum Pl. North Chicago, Lake Co, IL

Name of Reviewer: Maureen McHugh_____ Date of Review: 9/23/08____

1	Yes	No	Is this a one folder site?
2	Yes	No	Are there Superfund files for this site?
3	Yes	No	Did you Read the Executive Summary?
			There are: ____ SWMUs and _____ AOCs at this site.
4	Yes	No	Did you review the regulatory history?
5	Yes	No	Does the facility have interim status or a permit?
			This facility is a: __X__(CE)SQG, _____ LQG, or ____ Less than 90 day.
6	Yes	No	Was the Facility closed per RCRA? RCRAInfo 380 (1987)
			If Yes, was the closure: __X__ CC, or _____ CIP.
7	Yes	No	Are there documented (historical) releases? Briefly describe on Page 2.
8	Yes	No	Were there releases identified during the inspection? Briefly describe on Page 2.
9	Yes	No	Do you agree with the Conclusions and Recommendations?
			If No, briefly describe on Page 2.

As a result of your review of the PA/VSI or RFA file, please classify this site as:

_____ No further corrective action recommended or warranted: These are sites that closed the regulated units and any other SWMUs or AOCs at the site did not warrant any further corrective action (no historic releases or evidence of releases observed during the Visual Site Inspection).

_X____Further Action Required: Soil or sediment sampling or groundwater sampling or monitoring or any type of investigation that was recommended in the report in response to a documented or observed release at any SWMU or AOC and where such investigation, whether being addressed during the inspection or after, does not have the necessary documentation in the facility record files.

_____ More Information Needed: There is no RFA, PA/VSI or RCRA closure information available.

PA/VSI Or RFA FILE REVIEW CHECKLIST

Notes

The facility was inactive at the time of the PA.

Briefly describe any documented (historical) releases for any SWMU or AOC recorded in the report. For each release, please identify the SWMU or AOC and a one or two line description of release.

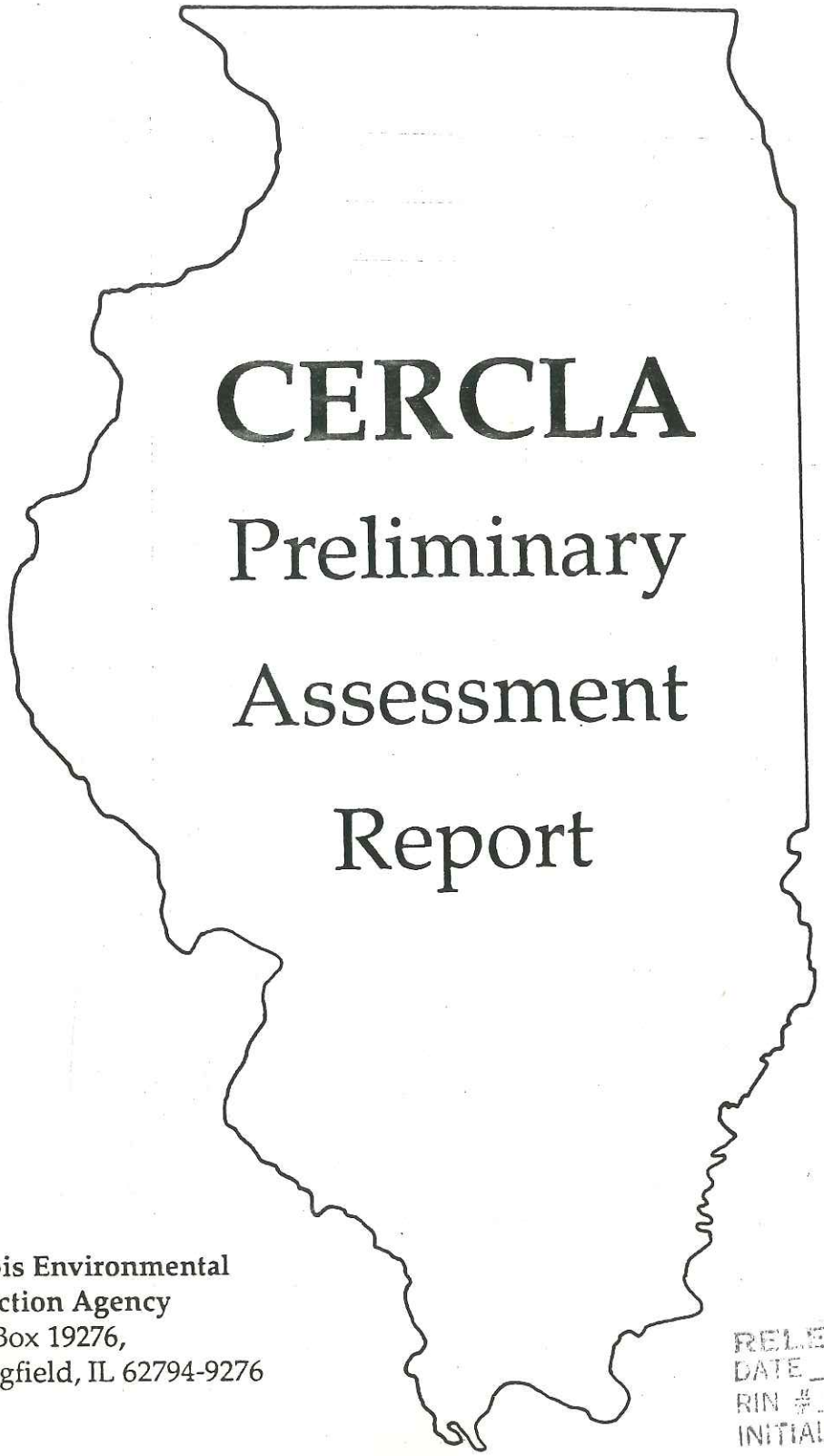
Samples taken in 1990 indicated toluene (746ppb), ethylbenzene (176ppb), xylene (963ppb), 1,1,1-trichloroethane (872ppb), trichloroethylene (68,417ppb), tetrachloroethylene (10,376ppb), chloroform (284ppb), lead (2970ppb), and cadmium (160ppb) contamination in the soil. The area of contamination was undergoing closure at the time of the PA, but this was in 1990 and closure was never approved in RCRAInfo.

Briefly describe any releases observed during the inspection for any SWMU or AOC recorded in the report. For each release, please identify the SWMU or AOC and a one or two line description of release.

PA/VSI Recommendations

In 1990, soil contamination was scheduled to be addressed through RCRA closure, but closure was never completed. Follow up on the current status of the site and if contamination was ever addressed.

L0971250008-Lake Co.
Fansteel, Inc.
ILD005130786
SF/HRS



CERCLA Preliminary Assessment Report

Illinois Environmental
Protection Agency
P.O. Box 19276,
Springfield, IL 62794-9276

Confidential Material May be Enclosed

EXECUTIVE SUMMARY

Fansteel, Incorporated was added to CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) in July of 1990 as a result of a request made by the Illinois Environmental Protection Agency.

The facility is situated on a nine-acre site located on the north side of 22nd Street between Commonwealth Avenue and Sheridan Road in the City of North Chicago, Lake County Illinois (the southwest 1/4 of the northwest 1/4 of Section 4, Township 44 North, Range 12 East). The site is currently bordered to the north by a residential area, to the east and south by industrial sites and to the west by a vacant lot.

According to the book, $2500 AND A DREAM (the history of Fansteel, Inc.) the facility dates back to 1942 when the U.S. Government authorized and financed its construction. The construction of this facility was actually an expansion of the already-existing Fansteel facility, located south of 22nd Street. The new facility was to utilize upgraded and mechanized equipment for the production of tantalum (important in the production of munitions). At that time the facility was owned by the Tantalum Defense Corporation, a subsidiary of Fansteel.

Presently, it is not known how the site was utilized prior to 1942. However, available historical sources (Sanborn Maps and Lake County plat books) show no commercial or industrial development at the site prior to that year.

According to Jack Beyrer, Fansteel's Environmental Consultant, the north facility continued operations, producing tantalum mill products and forming non-ferrous metals, until November of 1990 when production at the facility ceased. Beyrer stated that the facility will remain as the company's corporate headquarters and therefore, several offices will continue to operate at the site.

According to Agency records the south facility (located south of 22nd Street) was owned by Fansteel, Inc. until December of 1986 when it was sold to Federal Chicago Corporation. This portion of the facility completed RCRA closure in the spring of 1987.

Agency records indicate that the Illinois Environmental Protection Agency has been involved with this facility since at least the early 1970's, as the facility applied for various operating permits and was subject to routine inspections. Included in the Agency Records is a 1972 Opinion of the Illinois Pollution Control Board stating that discharges from the Fansteel facility into nearby Pettibone Creek were having a detrimental effect on the stream. As a

result, the Board ordered Fansteel to pre-treat its effluent so that it could be discharged to the North Shore Sanitary District, thus restricting the discharge into Pettibone Creek.

According to Agency records, Fansteel, Inc. filed a RCRA Part-A Permit in November of 1980 and subsequently applied for the RCRA Part-B permit. While waiting for approval and making modifications to its Part-B application, Fansteel, Inc. operated under interim status. The facility continued to operate under interim status until January of 1991 when the RCRA Part-B application was withdrawn.

Currently, the facility is undergoing closure of its hazardous waste management unit - a waste oil storage area that at one time housed two 13,500 gallon tanks. According to Beyrer, the tanks were removed in the summer of 1990. Closure records indicate that various sampling events have revealed soil contamination in the tank area. Analytical results from the most recent sampling event (August, 1990) reveal contamination to a depth of 20 feet. The table below summarizes these findings.

SAMPLES COLLECTED AUGUST, 1990

Compound	Concentration
toluene	746 ppb
ethylbenzene	176 ppb
xylene	963 ppb
1,1,1-trichloroethane	872 ppb
trichloroethylene	68,417 ppb
tetrachloroethylene	10,376 ppb
chloroform	284 ppb
lead	2,970* ppb
cadmium	160* ppb

* Extraction Procedure Toxicity (EP Tox)
- The values given are the highest found in this sampling event.

A site reconnaissance was conducted on January 17, 1991 by IEPA personnel. Those present were Judy Triller, Greg Dunn and Bob Casper of the IEPA's CERCLA Pre-Remedial Unit. Also present were Kevin Lesko and Mark Crites of the IEPA's RCRA program. Representatives of Fansteel were Jack Beyrer and Mark Steger, attorney for Fansteel. Because the facility is inactive, many areas were found to be vacant, while other areas contained only idle machinery. Several drums of waste, most said to be non-hazardous, were observed in the manufacturing building and warehouse.

The waste oil storage area that is undergoing closure was observed to be a metal building with a dirt floor. According to Beyrer, the west wall of the building has been removed to

allow access of equipment inside the building to collect samples. This building was found to be empty except for concrete saddles where a tank used to rest. The entire facility was found to be enclosed by a fence, and a guardhouse (occupied) was observed near the main gate, located along 22nd Street.

Based on information obtained from Agency files, site observations, and conversations with Jack Beyrer, two sources of possible contamination have been identified at the site.

1) Contaminated soil in the Waste Oil Storage Area. The area covers approximately 1440 square feet with contaminants identified to a depth of 20 feet (= 28800 cubic feet).
2) Drum storage area identified during the 1-17-91 site reconnaissance. Two drums of F001 waste (spent halogenated solvent) and nine other drums being analyzed to determine their classification as hazardous or non-hazardous. These drums were located in the manufacturing building stored on a concrete floor. (See site map.)

Drilling logs from sites to the east and west of the site indicate that fill extends from the ground surface to a depth of approximately 3 feet to 8.5 feet. An IEPA Emergency Response Unit incident log indicates that the "area was filled in years ago with what appears to be materials similar to fly ash, foundry sand". (The incident log deals with the

vacant lot just west of Fansteel, Inc.) Because no drilling logs from the Fansteel site are available at this time, it isn't clear whether this fill exists under the Fansteel facility.

Additional sources (well logs, drilling logs, an environmental report from a neighboring site) indicate that the geology of the area consists of glacial till to a depth of approximately 160 feet underlain by Silurian Dolomite to a depth of approximately 400 feet. Below the dolomite are the Ordivician-aged rocks of the Maquoketa Shale, Galena-Platteville Limestone and the Glenwood-St. Peter Sandstone. As indicated by well logs of the area and the IEPA Division of Public Water Supplies Facility Inventory, three aquifers are utilized in this region - the sand and gravel aquifer (of glacial till), the Silurian Dolomite, and the Glenwood-St. Peter Sandstone.

Information obtained from public water operators of the area indicates that the nearest known well is located approximately 1.5 miles south-southeast of the site. In the area between one and two miles of the site there are approximately 15 private wells and one public well serving a total of approximately 115 people. In the area between two and three miles of the site there are approximately 41 wells (four public wells, five non-community wells, and approximately 32 private wells) serving 5720 people, and between three and

four miles of the site there are approximately 170 wells (two non-community wells and approximately 168 private wells) serving 1820 people.

Others residing within four miles of the site obtain water from Lake Michigan. Within the 15-mile surface water route, there are eleven documented, public surface water intakes (all from Lake Michigan) serving approximately 235,000 people.

Surface water runoff from the site flows south to 22nd Street where it enters a stormwater outfall and discharges to Pettibone Creek. Pettibone Creek flows south and east through the Great Lakes Naval Training Center where it enters Lake Michigan approximately 1.2 miles from the site. (See attached map).

Information provided by the Illinois Department of Conservation documents the presence of 20 different state-endangered or threatened species as well as eight state-designated natural areas and two state-designated nature preserves within the 15-mile surface water route. All of these sensitive environments are located in or adjacent to Lake Michigan.

Information known about the site at this time suggests that the facility poses little or no threat to the air or nearby

surface water. The area of contaminated soil on site does present the possibility of groundwater contamination. However, this area is being addressed through the IEPA's RCRA program. Therefore, it is recommended that no further CERCLA remedial action be taken at this site.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: D005130786

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site): FANSTEEL, INC.
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER: 22nd Street
03 CITY: North Chicago
04 STATE: IL | 05 ZIP CODE: 600064 | 06 COUNTY: LAKE | 07 COUNTY CODE: 097 | 08 CONG DIST:
09 COORDINATES: LATITUDE 42 19 12.- | LONGITUDE 087 50 40.-
10 DIRECTIONS TO SITE (Starting from nearest public road): Waukegan IL quadrangle
Located on north side of 22nd. Street between Commonwealth Ave. and Sheridan Road.

III. RESPONSIBLE PARTIES

01 OWNER (If known): FANSTEEL, INC
02 STREET (Business, mailing, residential): 1 Tantalum Place
03 CITY: North Chicago
04 STATE: IL | 05 ZIP CODE: 600064 | 06 TELEPHONE NUMBER: (708) 689-4900
07 OPERATOR (If known and different from owner): Same As Above
08 STREET (Business, mailing, residential):
09 CITY:
10 STATE: | 11 ZIP CODE: | 12 TELEPHONE NUMBER: ( )
13 TYPE OF OWNERSHIP (Check one): ■ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply): ■ A. RCRA 3001 3510 DATE RECEIVED: 11/18/80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: / / (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION: ■ YES ☐ NO DATE 1/17/91 (MONTH DAY YEAR)
BY (Check all that apply): ☐ A. EPA ☐ B. EPA CONTRACTOR ■ C. STATE ☐ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____
02 SITE STATUS (Check one): ☐ A. ACTIVE ■ B. INACTIVE ☐ C. UNKNOWN
03 YEARS OF OPERATION: 1942 (BEGINNING YEAR) | 1990 (ENDING YEAR) ☐ UNKNOWN
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Organics
Oily waste
Heavy Metals
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Groundwater (Environment / Population)
Direct Contact (Population)

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents): ☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ■ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)		03 TELEPHONE NUMBER
Jack Beyrer	Fansteel, Inc.		(708) 689-4900
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Jay J. Triller	IEPA	DLPC/RPMS	(217) 782-6760	3/6/91 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IL	D005130706

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)
- [x] A SOLID
- [ ] B POWDER, FINES
- [ ] C SLUDGE
- [ ] D OTHER (Specify)
- [ ] E SLURRY
- [x] F LIQUID
- [ ] G GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)
- TONS
- CUBIC YARDS unKnown
- NO OF DRUMS

03 WASTE CHARACTERISTICS (Check all that apply)
- [x] A TOXIC
- [x] B CORROSIVE
- [ ] C RADIOACTIVE
- [ ] D PERSISTENT
- [ ] E SOLUBLE
- [ ] F INFECTIOUS
- [x] G FLAMMABLE
- [ ] H IGNITABLE
- [ ] I HIGHLY VOLATILE
- [ ] J EXPLOSIVE
- [ ] K REACTIVE
- [ ] L INCOMPATIBLE
- [ ] M NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	25089	Gallons	Waste Oil / Solvent Mix
SOL	SOLVENTS	unKnown		{Detected in Soil samples
PSD	PESTICIDES			{Also two 55-gallon drums
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES	458	Gallons	
MES	HEAVY METALS	unKnown		Detected in soil samples

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
BAS	Sodium Hydroxide	1310-73-2	Solid - UnKnown	unKnown	—
MES	Lead	7439-92-1	Found in Soil	2970	ppb
MES	Cadmium	7440-43-9	Found in Soil	1160	ppb
SOL	Toluene	108-88-3	"	746	ppb
SOL	Ethyl benzene	100-41-4	"	176	ppb
SOL	Xylene	1330-20-7	"	963	ppb
SOL	1,1,1-trichloroethane	71-55-6	"	872	ppb
SOL	trichloroethylene	79-01-6	"	68417	ppb
SOL	Chloroform	67-66-3	"	284	ppb
SOL	Tetrachloroethylene	127-18-4	"	10376	ppb
	Caustic Rinse Water	—	UnKnown		—
	Flammable Liquid	—	unKnown	unKnown	—
	Waste Oil / Solvent Mix	—	unKnown	unKnown	—

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

- 1988 Generator Annual Hazardous Waste Report (IEPA-DLPC Files)
- Analytical Results of samples from Waste Oil Storage Area - Report by Carlson Knight Kudrna, Inc. (10-9-90)
- Site reconnaissance of 1-17-91 and interview with Jack Beyrer.

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: D005130786

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 100665
02 □ OBSERVED (DATE: ___ / ___ / ___) ■ POTENTIAL □ ALLEGED
04 NARRATIVE DESCRIPTION
Soil samples collected from the Waste Oil Storage Area reveal the presence of contaminants to a depth of 18' to 20'. Boring logs indicate groundwater at a depth of 10' to 11'.

01 □ B SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: ____
02 □ OBSERVED (DATE: ___ / ___ / ___) □ POTENTIAL □ ALLEGED
04 NARRATIVE DESCRIPTION
Surface runoff from the site enters Pettibone Creek, which flows just west then South of the site + enters Lake Michigan. RCRA inspections since 1982 indicate that wastes are stored in secure containers indoors. Therefore the likelihood of surface water contamination has been unlikely. Also see "K".

01 □ C CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: ____
02 □ OBSERVED (DATE: ___ / ___ / ___) □ POTENTIAL □ ALLEGED
04 NARRATIVE DESCRIPTION
Older Agency Inspection Reports from IEPA/DAPC indicate some concern about certain possible air emissions. However, since the plant stopped production in Nov. of 1990, contamination of air is very unlikely.

01 □ D FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: ____
02 □ OBSERVED (DATE: ___ / ___ / ___) □ POTENTIAL □ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed.

01 □ E DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: ____
02 □ OBSERVED (DATE: ___ / ___ / ___) □ POTENTIAL □ ALLEGED
04 NARRATIVE DESCRIPTION
The presence of soil contamination leads to the possibility of a direct contact hazard. However, the entire facility is fenced + has a guard service, making direct contact very unlikely. The area of contamination is currently going through RCRA Closure.

01 ■ F CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 27 (ACRES)
02 ■ OBSERVED (DATE: 8-24-90) POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION
Contaminants have been detected in the soil of the Waste Oil Storage Area to a depth of 18 feet to 20 feet. This area is situated inside a metal building.

01 ■ G DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 7582
02 □ OBSERVED (DATE: ___ / ___ / ___) ■ POTENTIAL ALLEGED
04 NARRATIVE DESCRIPTION
The nearest documented well is located approximately 1.5 miles South-southeast of the site. This and other wells in the same area draw water from a sand + gravel aquifer at a depth of approx. 140 feet.

01 □ H WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: ____
02 □ OBSERVED (DATE: ___ / ___ / ___) □ POTENTIAL □ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed.

01 □ I POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: ____
02 □ OBSERVED (DATE: ___ / ___ / ___) □ POTENTIAL □ ALLEGED
04 NARRATIVE DESCRIPTION
None documented or observed.
Facility is enclosed by a fence. An occupied guardhouse is located near the main gate.

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: IL | 02 SITE NUMBER: D005130 6

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

None documented or observed.

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (Include names of species)
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

Older Agency records (DWPC - 1972) indicate that the facility formerly discharge effluent to Pettibone Creek, having a detrimental effect on that stream. (As a result, Fansteel was ordered to pretreat its effluent, which would then be released to the North Shore Sanitary District.

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

See "K", above.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills, runoff, standing liquids, leaking drums)
02 ☒ OBSERVED (DATE: 8-24-90) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

See "F".

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

None Known

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

None Known

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

None documented or observed.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

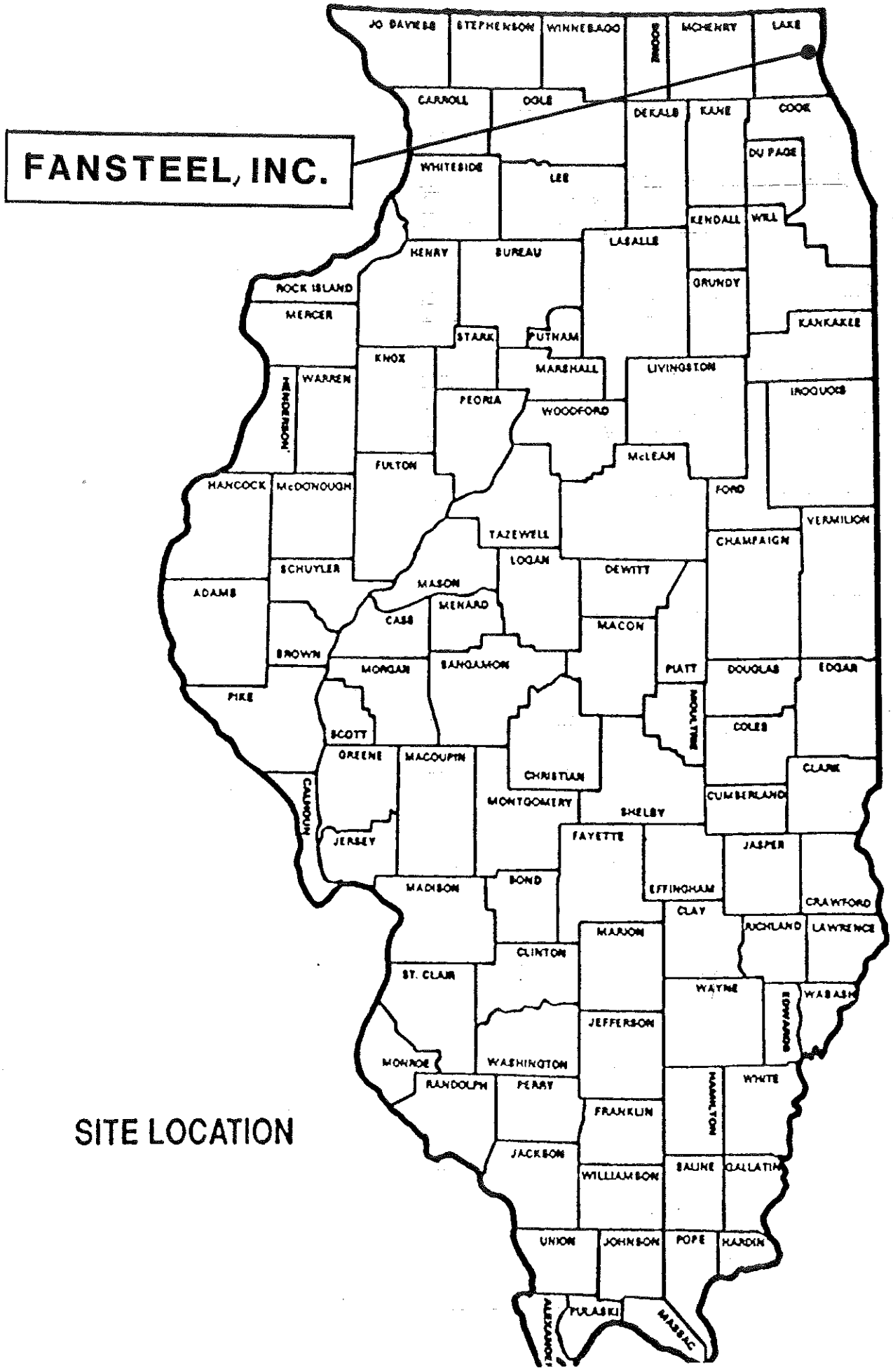
III. TOTAL POPULATION POTENTIALLY AFFECTED: 1200665

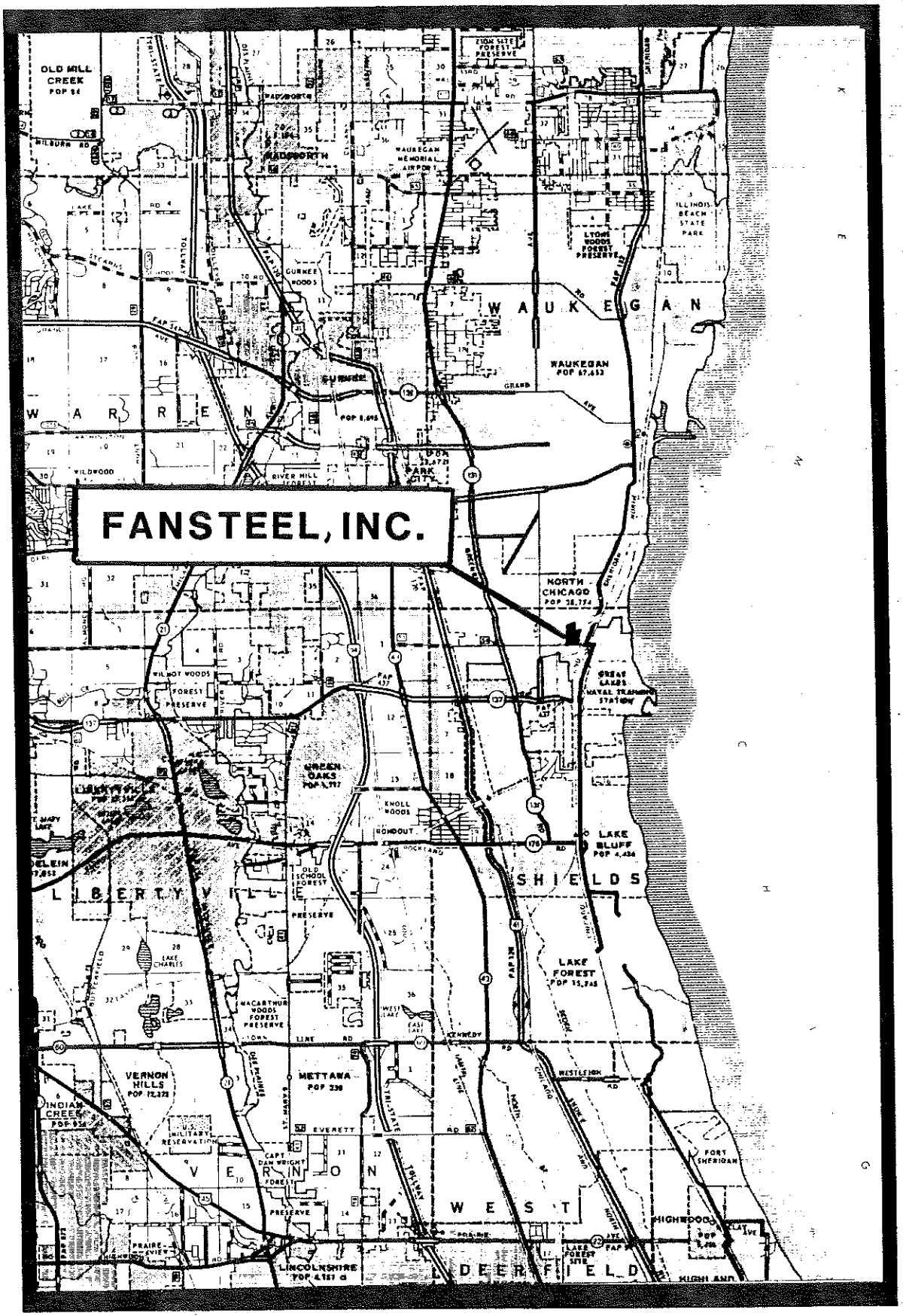
IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., State files, sample analysis, reports)

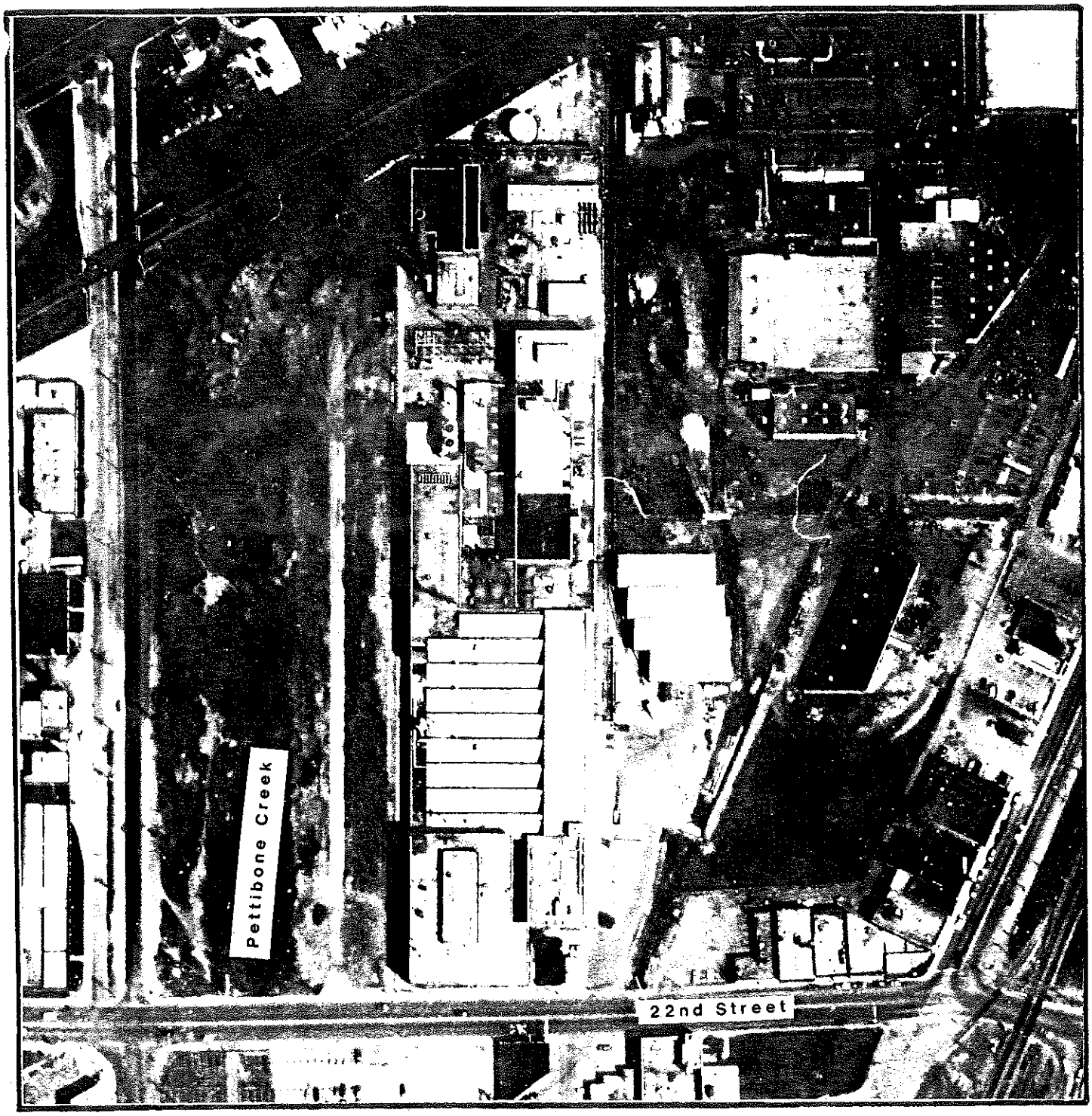
- Oct. 9, 1990 Report by Carlson Knight Kudrna, Inc. citing analytical results of samples collected from Waste Oil Storage Area
- Information from local water operators and well logs.
- Records on file at IEPA DLPC, DAPC, DWPC.

EPA FORM 2070-12 (7-81)


FANSTEEL, INC.
JO DAVIESS
STEPHENSON
WINNEBAGO
BOONE
MCHENRY
LAKE
CARROLL
OGLE
DEKALB
KANE
COOK
DU PAGE
WHITESIDE
LEE
KENDALL
WILL
LASALLE
HENRY
BUREAU
GRUNDY
ROCK ISLAND
MERCER
KANKAKEE
STARK
PUTNAM
KNOX
MARSHALL
LIVINGSTON
HENDERSON
WARREN
PEORIA
WOODFORD
IROQUOIS
FULTON
McLEAN
HANCOCK
McDONOUGH
FORD
VERMILION
TAZEWELL
CHAMPAIGN
SCHUYLER
LOGAN
DEWITT
MASON
ADAMS
CASS
MENARD
MACON
BROWN
MORGAN
SANGAMON
PIATT
DOUGLAS
EDGAR
PIKE
MOULTRIE
SCOTT
COLES
GREENE
MACOUPIN
CHRISTIAN
CLARK
CALHOUN
MONTGOMERY
CUMBERLAND
SHELBY
JERSEY
FAYETTE
JASPER
MADISON
BOND
EFFINGHAM
CRAWFORD
CLAY
RICHLAND
LAWRENCE
MARION
CLINTON
ST. CLAIR
WAYNE
WABASH
EDWARDS
JEFFERSON
MONROE
WASHINGTON
WHITE
RANDOLPH
PERRY
HAMILTON
FRANKLIN
JACKSON
SALINE
GALLATIN
WILLIAMSON
UNION
JOHNSON
POPE
HARDIN
ALEXANDER
PULASKI
MASSAC
SITE LOCATION



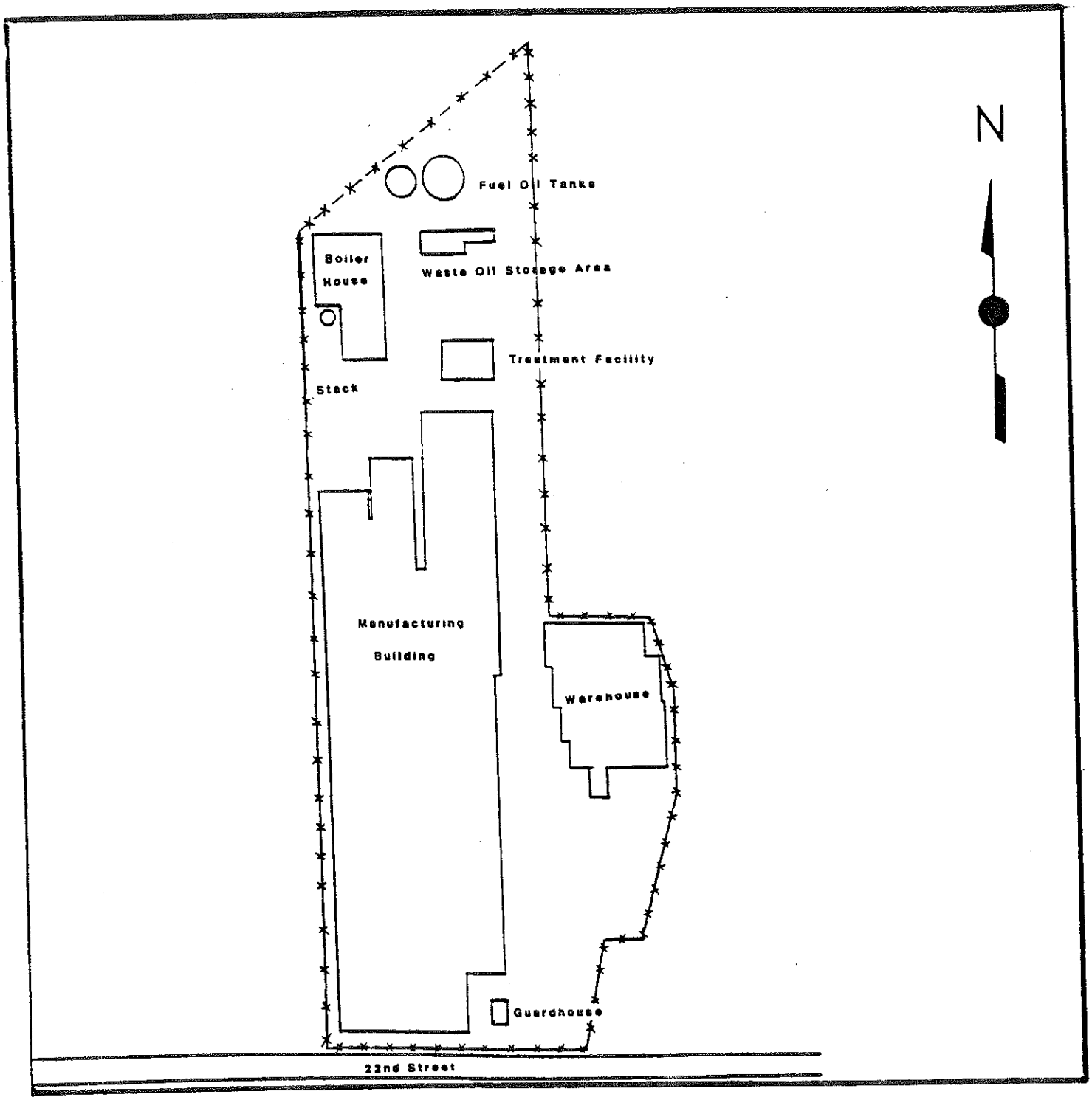
FANSTEEL, INC.	IEPA
Lake County	



Chicago Aerial Survey Inc. 1985 Air Photo

N

FANSTEEL INC.



FANSTEEL INC.

549 West Randolph Street Chicago, Illinois 60606 (312) 346-2140 **Reference 3**

PN 8175

Carlson
Knight
Kudma, Inc.

Management Consultants for Environmental Issues

October 9, 1990

Mr. Mark Steger
McBride Baker & Coles
Northwestern Atrium Center
500 West Madison Street
40th Floor
Chicago, IL 60606

Subject: Analytical Results

Fansteel
RCRA Closure- Waste Oil Storage Area
North Chicago, Illinois

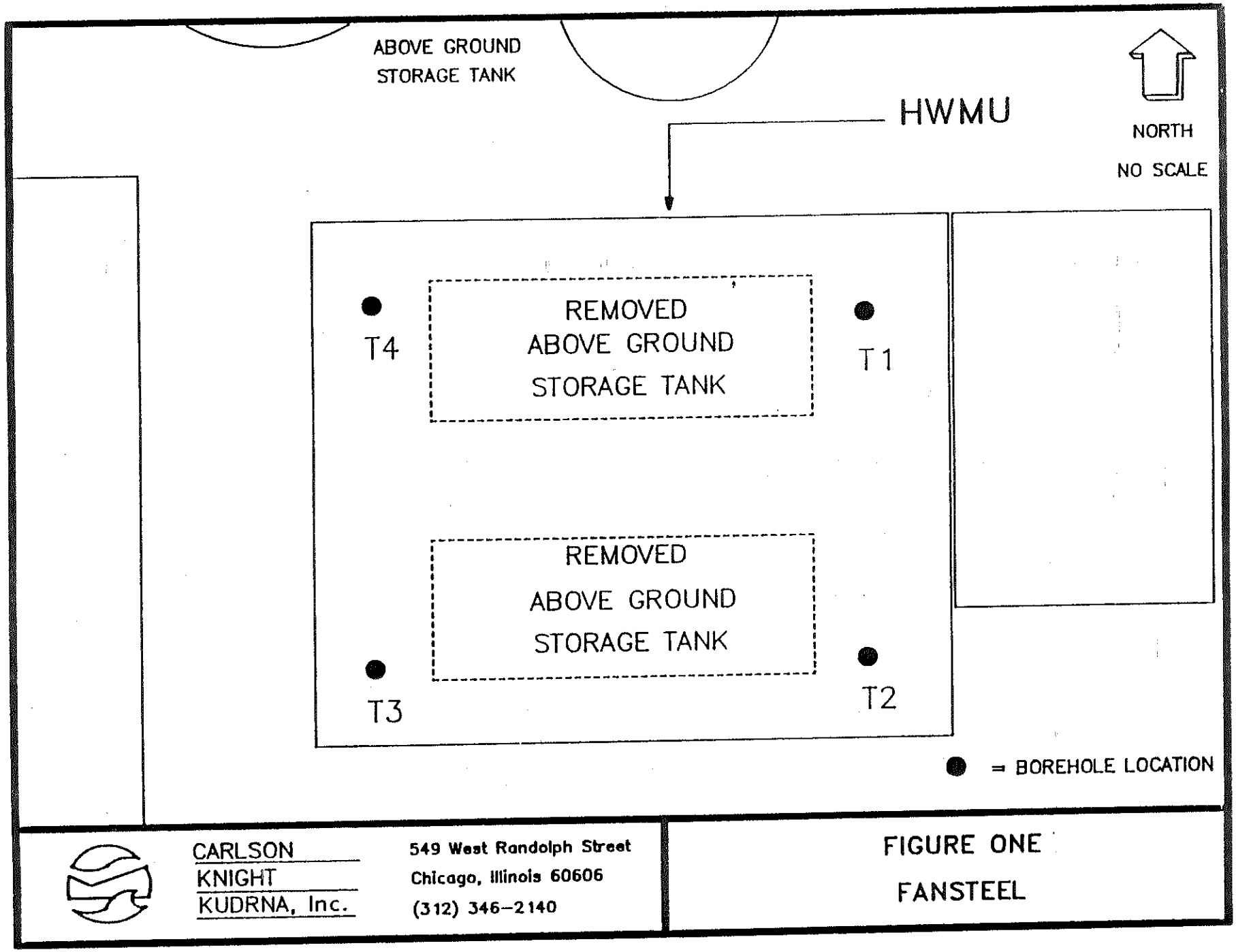
Dear Mr. Steger:

Pursuant to your request please find the analytical results and diagrams for the Phase Two Subsurface Soil Investigation at the above-referenced site.

Soil sampling was conducted at the site on August 24, 1990, under the supervision of Edward Garske and Frank Sherman of CKK. Drill rig and crew were provided by Patrick Drilling of Glen Elyn, Illinois. Four boreholes were drilled at the site in the locations shown in Figure One. The boreholes were drilled using a hollow stem auger to a depth of 20 feet. As each borehole was drilled, auger cuttings were continuously screened with a Century 128 Organic Vapor Analyzer (OVA) to identify locations with elevated levels of volatile organic compounds. Samples were collected using Shelby tube samplers from each borehole at depths of 3-5 feet, 9-11 feet, 13-15 feet, and 18-20 feet. The auger was steam cleaned between each borehole.

All samples were analyzed by Suburban Laboratories in Hillside, Illinois, for EP TOX lead and cadmium and the following volatile organic compounds; benzene, toluene, ethylbenzene, xylene, chlorobenzene, trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane, acetone, carbon tetrachloride, methylene chloride, and chloroform. The results of this analysis are summarized in Table One along with the current cleanup objectives for this site suggested by the Illinois Environmental Protection Agency (IEPA). A complete set of laboratory results and chain of custody records is attached.

In addition to Table One showing the analytical results, Figures Two through Six show the estimated boundaries of each type of contamination identified at the site.



CARLSON
KNIGHT
KUDRNA, Inc.

549 West Randolph Street
Chicago, Illinois 60606
(312) 346-2140

FIGURE ONE

FANSTEEL

TABLE ONE

FANSTEEL
ANALYTICAL RESULTS

	T1A	T1B	T1C	T1D	T2A	T2B	T2C	T2D	T3A	T3B	T3C	T3D	T4A	T4B	T4C	T4D	CLEANUP OBJECTIVE**
DEPTH (feet)	4	9	14	19	4	9	14	19	4	9	14	19	4	9	14	19	
pH	6.0	6.0	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0	6.0	7.0	5.0	6.0	6.0	6.5	
Benzene																	5.0
Toluene					✓746												2,000
Ethylbenzene										✓176							680
Xylene					✓963		162			726			301	273	361		440
1,1,1-Trichloroethane					✓872		492		312	429		430	532	522	421	409	200
Methylene Chloride																	0.19
Carbon Tetrachloride																	5.0
Trichloroethylene		724	1,600	422	✓68,417	18,656		814	14,123	24,676	503			253			5.0
Tetrachloroethylene		9.8	5.4		✓10,376	1,168	3.6	10.4		1,706			3.6		6.9	5.5	0.80
Chlorobenzene																	60
Acetone																	16,600
Chloroform	14.1	14.0	16.1	13.5	✓284	25.5	15.2	25.1		27.1	13.4		26.8	33.8	20.5	12.5	0.19
Lead*					✓2,970	68											50
Cadmium*					✓160												10

All values reported in parts per billion (ppb)

Only those results above laboratory detection limits are reported in this table.

* Extraction Procedure Toxicity (EP TOX)

** Cleanup objectives as specified in IEPA letter to Fansteel dated February 13, 1990.

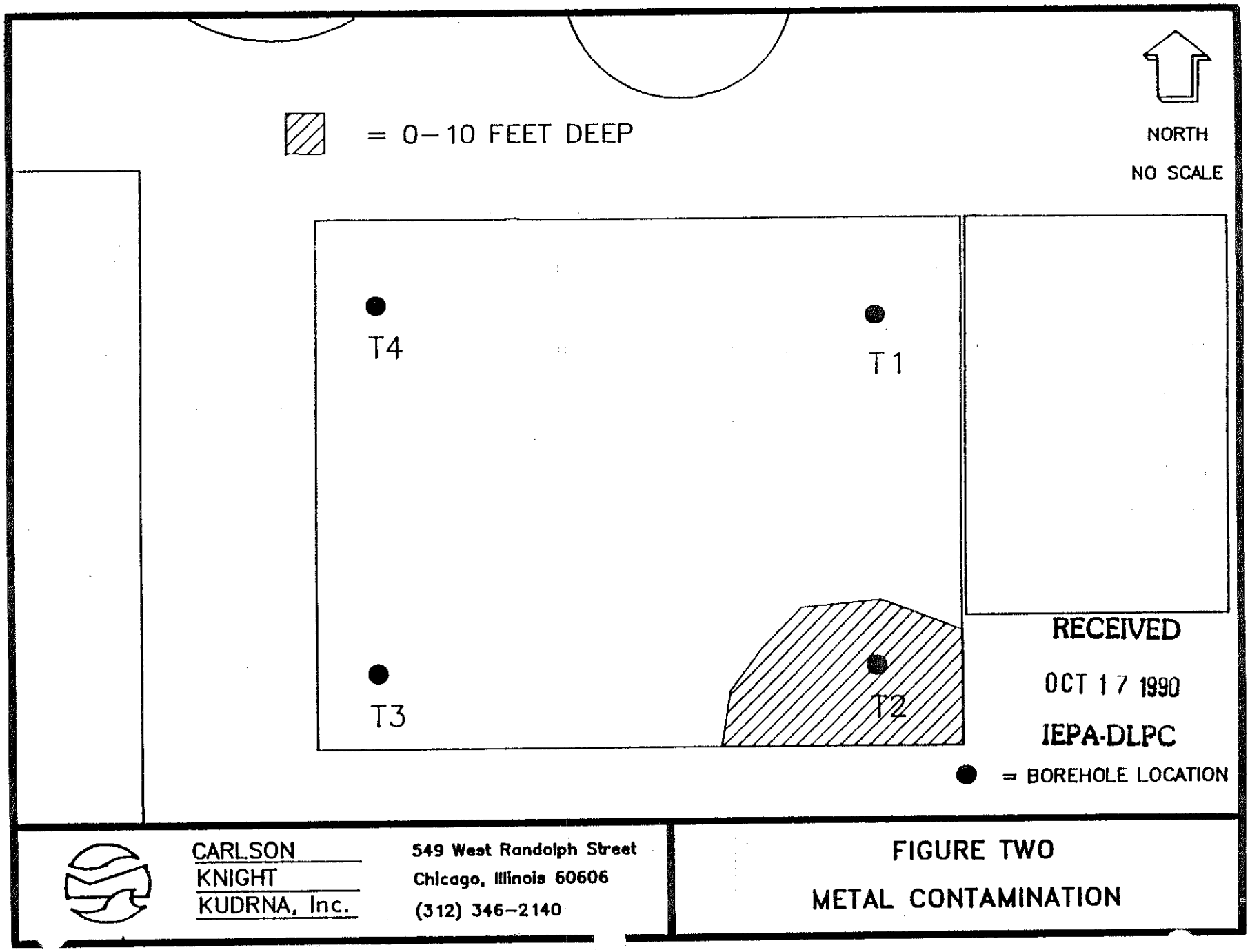
Carlson
Knight
Kudrna, Inc.

If you have any questions or require any additional information please feel free to contact me.

Respectfully submitted,

CARLSON KNIGHT KUDRNA, Inc.

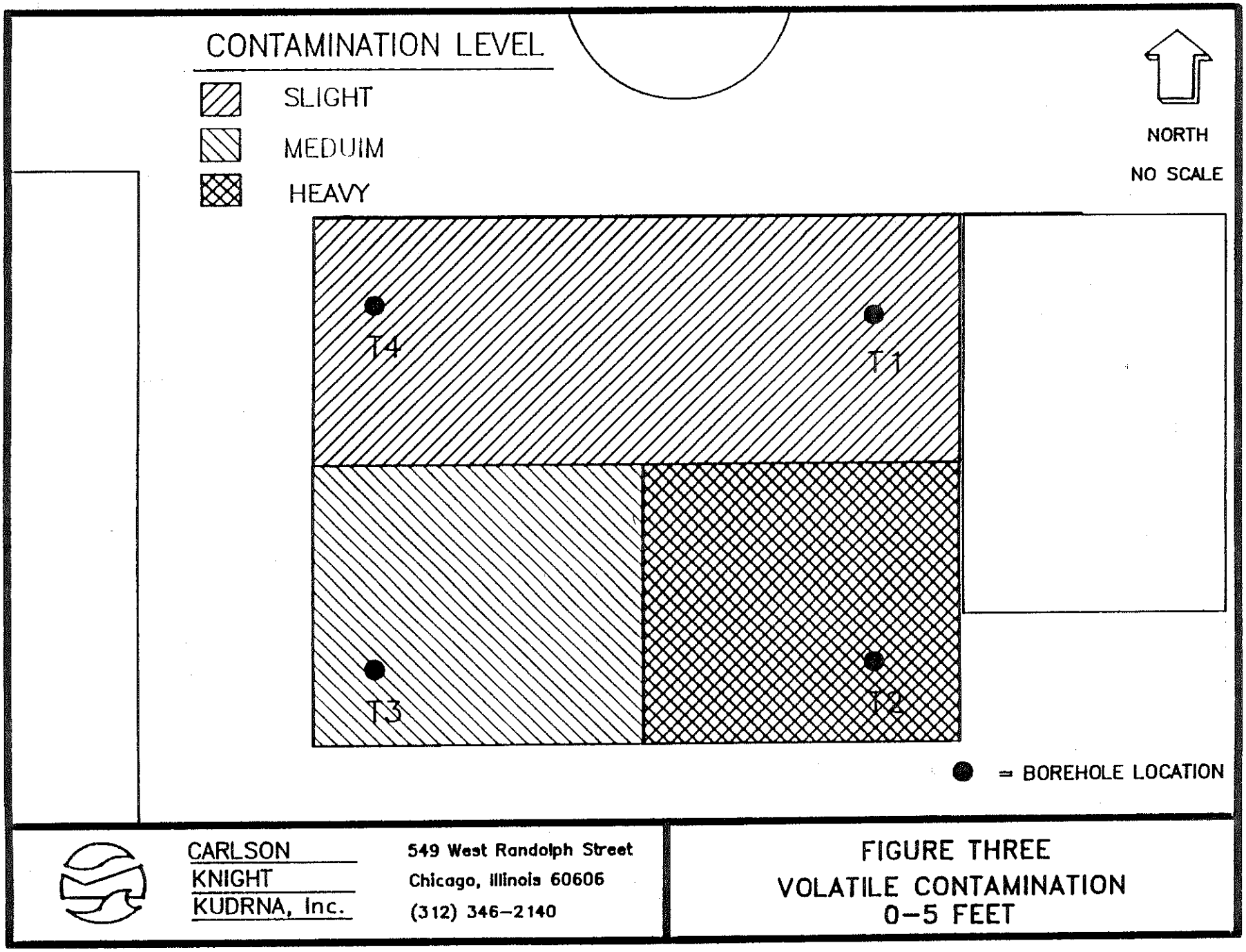
Edward Garske
Manager, Environmental
Monitoring Services



CARLSON KNIGHT KUDRNA, Inc.

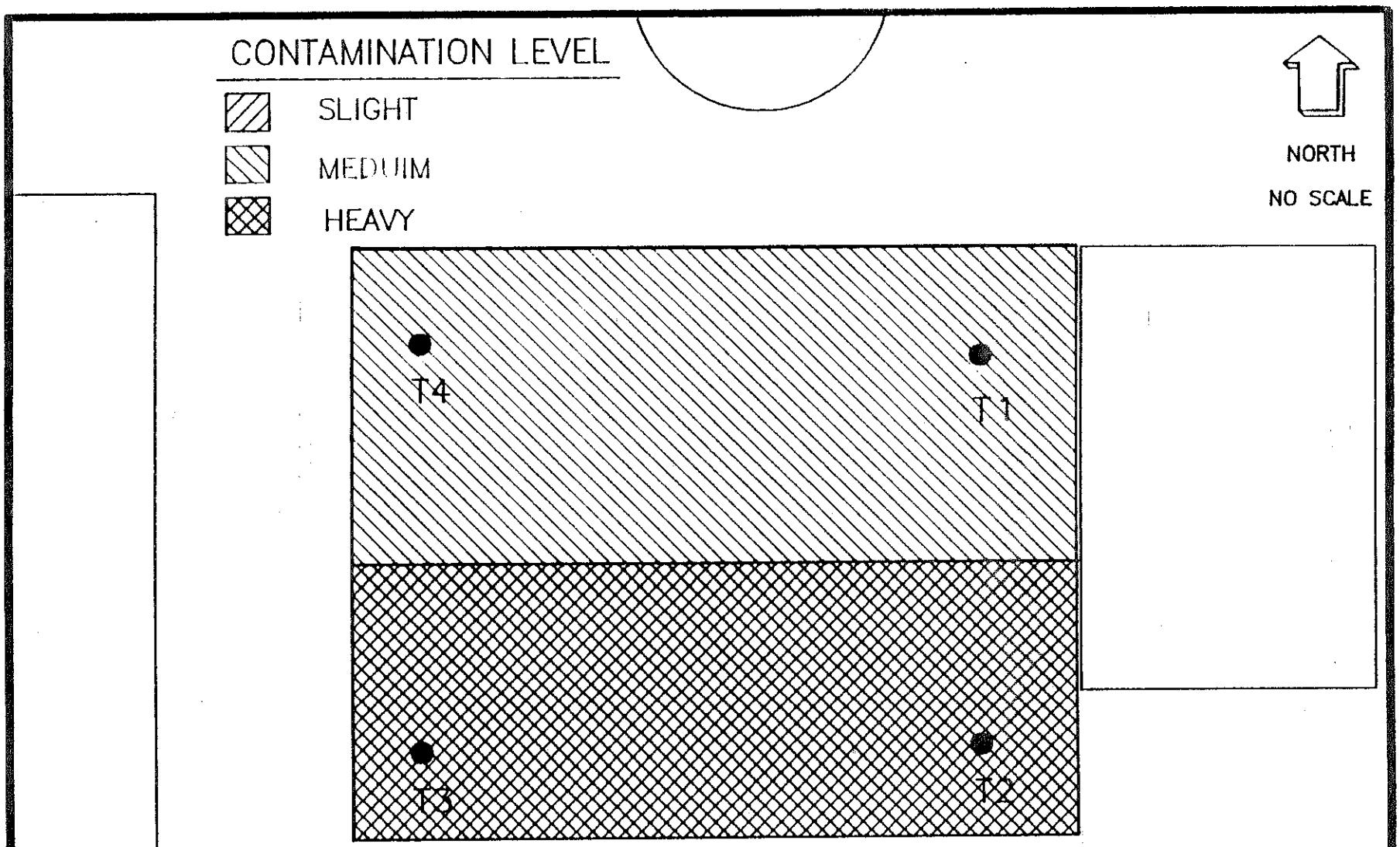
549 West Randolph Street
Chicago, Illinois 60606
(312) 346–2140

FIGURE TWO
METAL CONTAMINATION



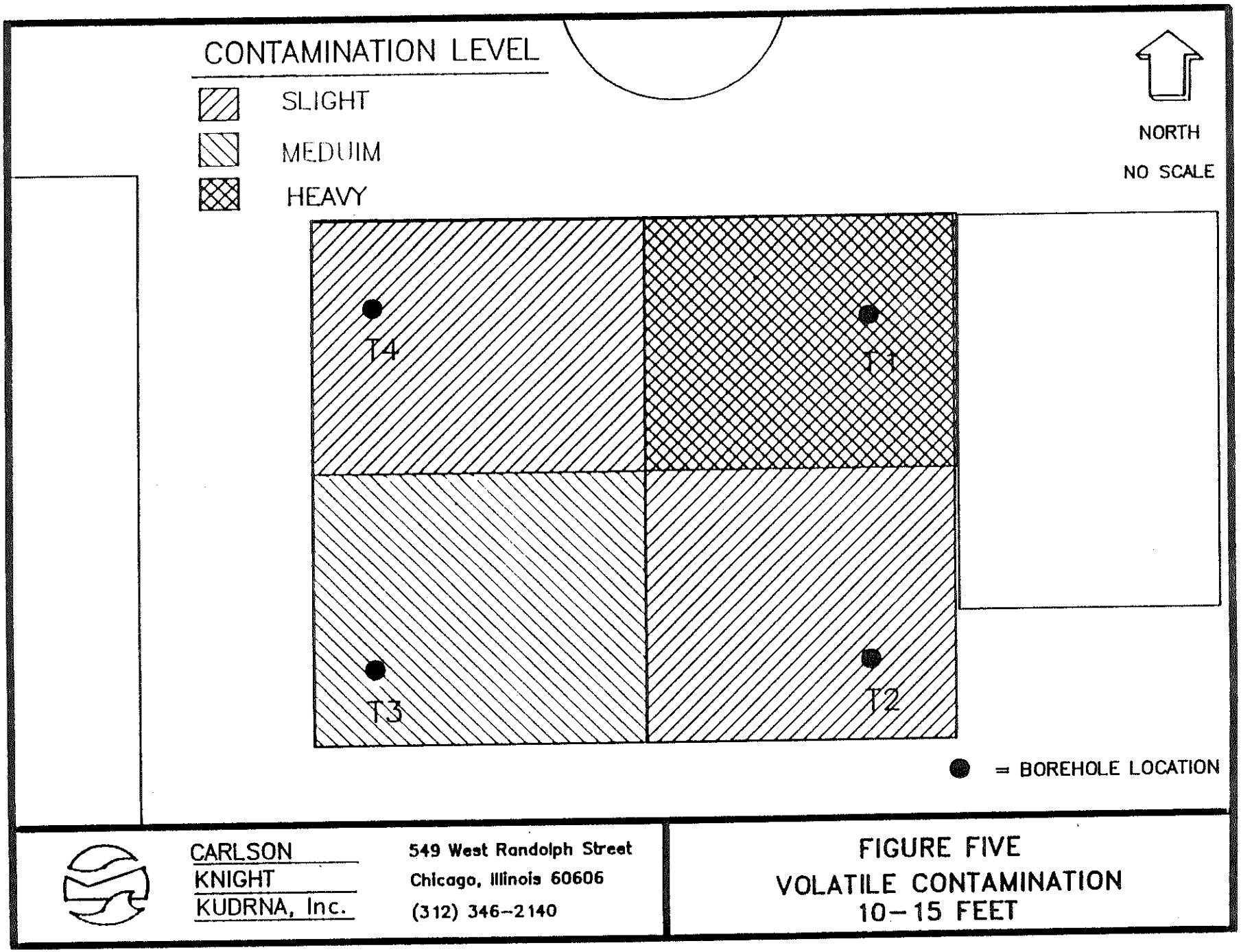
CARLSON
KNIGHT
KUDRNA, Inc.
549 West Randolph Street
Chicago, Illinois 60606
(312) 346-2140

FIGURE THREE
VOLATILE CONTAMINATION
0-5 FEET



CARLSON
KNIGHT
KUDRNA, Inc.
549 West Randolph Street
Chicago, Illinois 60606
(312) 346-2140

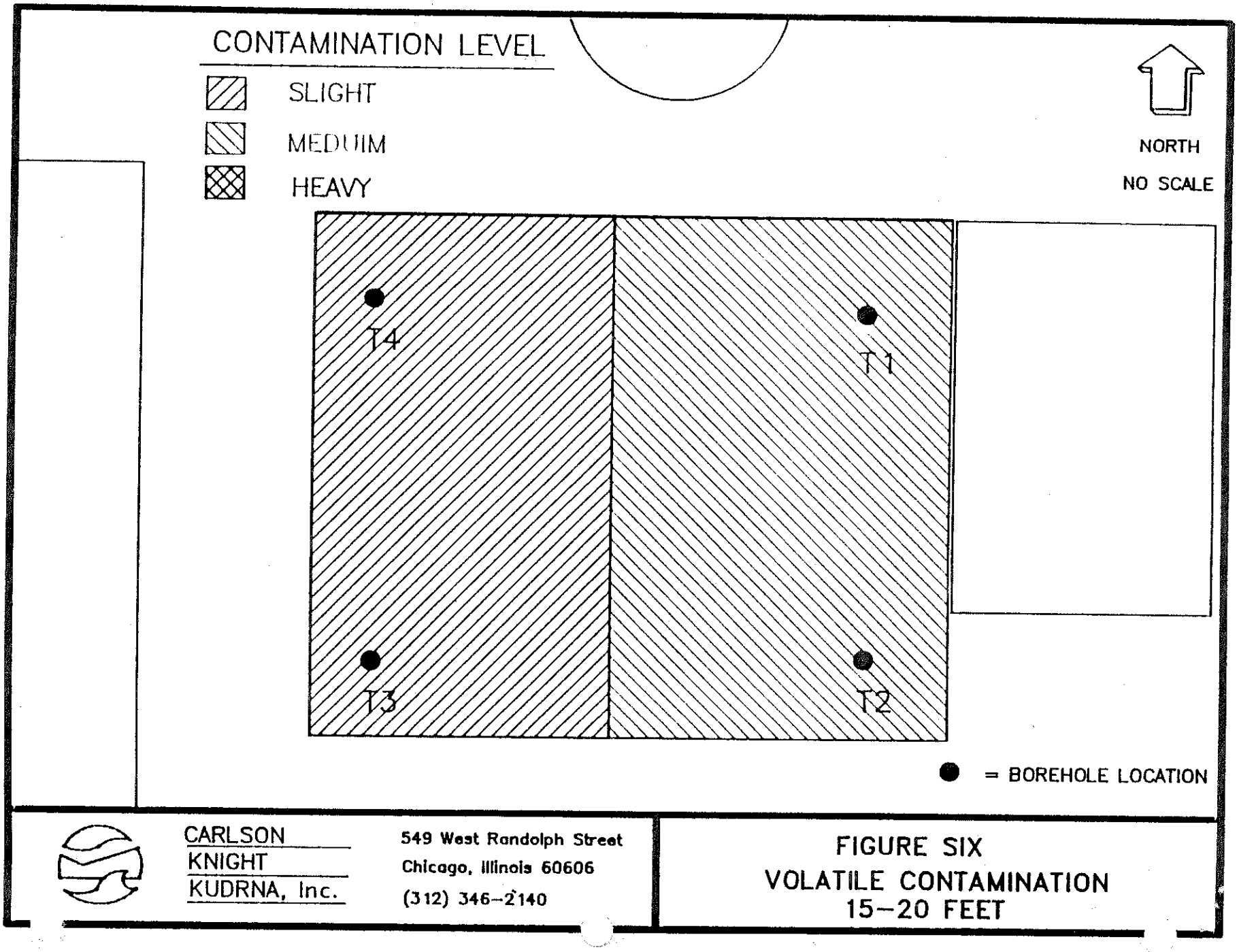
FIGURE FOUR
VOLATILE CONTAMINATION
5-10 FEET



CARLSON KNIGHT KUDRNA, Inc.

549 West Randolph Street
Chicago, Illinois 60606
(312) 346-2140

FIGURE FIVE
VOLATILE CONTAMINATION
10-15 FEET



CARLSON KNIGHT KUDRNA, Inc.

549 West Randolph Street
Chicago, Illinois 60606
(312) 346-2140

FIGURE SIX
VOLATILE CONTAMINATION
15-20 FEET

Attachment 7

RECEIVED
JUN 17 1985
IEPA-DLPC

RCRA FACILITY REVIEW FOR
SOLID WASTE MANAGEMENT UNITS

FACILITY NAME: FANSTEEL ELECTROMETALS
EPA ID NUMBER: ILD 005130786
LOCATION (CITY, STATE): NORTH CHICAGO, IL.
DATE OF INSPECTION:
INSPECTOR(S):
TITLE(S):
FACILITY REPRESENTATIVES PRESENT:

1. Based on a review of State records, describe any land disposal units that have ever had a State permit for managing municipal or industrial (non-hazardous) waste at this site. Summarize the information which is available to indicate whether the waste may contain hazardous constituents and whether the unit may be leaking.

none

2. Based on a review of State records, describe any incinerators or other solid waste management units at this site (other than those treatment, storage and disposal units that have interim status) for which a State air pollution control permit has been issued. Summarize the information which is available to indicate whether the waste may contain hazardous constituents, and whether and whether the emissions from the unit may contain hazardous constituents.

DAPC permit 72120090 ID No. 097125AAD for acid cleaning operation with wet scrubber control + trichloroethylene degreaser; DAPC permit 73031580 for electrical parts manufacturing operation including lathe turning, milling, copper forming, sintering furnaces, 2 reactors, + 5 wagers; DAPC permit 75030157 for 16 vacuum heat treat/air compressor systems; DAPC permit 80010079 for rotary furnace

3. Based on a review of State records (including CERCLA 103(c) notifications, complaints from the public, etc.) describe any known, suspected or likely releases of hazardous constituents to the environment from solid waste management units, except those spills not related to a specific unit, which were properly reported and cleaned up.

none

4. Based on State records, describe any permitted injection wells at this facility and indicate whether injected the wastes may contain hazardous waste or hazardous constituents. Summarize the information which is available to indicate whether hazardous constituents may be escaping to the environment through improperly constructed or managed injection wells.

None

5. Did you see any of the following solid waste management units or evidence of prior existance of such a unit at the facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTES UNITS CURRENTLY SHOWN IN THE PART B APPLICATION

	YES	NO	SUSPECTED
• Landfill			
• Surface Impoundment			
• Land Farm			
• Waste Pile			
• Incinerator			
• Storage Tank (Above Ground)			
• Storage Tank (Underground)			
• Container Storage Area			
• Injection Wells			
• Wastewater Treatment Units			
• Transfer Stations			
• Waste Recycling Operations			
• Waste Treatment, Detoxification			
• Other _____			

6. If there are "Yes" answers to any of the items in Number 5 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volume of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions, location at facility, provide a site plan if avalable. You may simply reference the owner or operator's "Certification Regarding Potential Releases from Solid Waste Management Units" if the description contained therein appears to be accurate.

NA

7. If previous inspection reports indicated the presence of solid waste management units other than those described above, what is known about them?

NA

8. Describe other information about existing or closed solid waste management units at this facility that should be considered in determining whether there may be a continuing release of hazardous waste or hazardous constituents from solid waste mangement units.

NA

LINDA J. KISSINGER
Typed or Printed Name - State Permit Writer

Signature - State Permit Writer

6/21/85
Date

PUBLIC NOTICE

CURWOOD INCORPORATED
NEW LONDON, WISCONSIN

The United States Environmental Protection Agency (U.S. EPA) Region V, is hereby giving notice of its intent to issue a Resource Conservation and Recovery Act (RCRA) permit to Curwood, Incorporated. This permit would allow Curwood to continue to operate a hazardous waste storage, treatment, and incinerator facility at 718 High Street, New London, Wisconsin. Curwood is currently operating under "interim status" as provided for in Section 3005 of the RCRA. This notice is given in accordance with Section 7004 of the RCRA and Title 40 Section 124.10 of the Code of Federal Regulations. The U.S. EPA is inviting public comments on this application and U.S. EPA's draft permit.

The U.S. EPA also gives notice of its tentative determination that there have been NO uncorrected releases of hazardous waste or hazardous constituents to the environment, from any current or previous solid waste management units, at the Curwood facility at 718 High Street, New London, Wisconsin.

This tentative determination is one of the steps U.S. EPA is undertaking to fulfill its obligation under the recently enacted (November 8, 1984) Hazardous and Solid Waste Amendments of 1984 (HSWA; the Amendments). Section 206 of the Amendments requires that all hazardous waste management permits issued after November 8, 1984, must require corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage, or disposal facility seeking a permit. It further requires that permits issued must contain schedules of compliance for such corrective action (where such correcti action cannot be completed prior to the issuance of the permit) and assurances of

ATTACHMENT #3

CERTIFICATION REGARDING POTENTIAL RELEASES F...
SOLID WASTE MANAGEMENT UNITS

FACILITY NAME: FANSTEEL ELECTROMETALS

EPA I.D. NUMBER: 1LD005130786

LOCATION CITY: North Chicago

STATE: Illinois

1. Are there any of the following solid waste management units (existing or closed) at your facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTES UNITS CURRENTLY SHOWN IN YOUR PART B APPLICATION

	YES	NO
° Landfill		X
° Surface Impoundment		X
° Land Farm		X
° Waste Pile		X
° Incinerator		X
° Storage Tank (Above Ground)		X
° Storage Tank (Underground)		X
° Container Storage Area		X
° Injection Wells		X
° Wastewater Treatment Units		X
° Transfer Stations		X
° Waste Recycling Operations		X
° Waste Treatment, Detoxification		X
° Other _____		X

2. If there are "Yes" answers to any of the items in Number 1 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volume of wastes disposed on and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions, location at facility, provide a site plan if avaliable.

NOTE: Hazardous waste are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII Of 40 CFR Part 261.

copy given to IEPA on 5/23/85

081-47

3. For the units noted in Number 1 above and also those hazardous waste units in your Part B application, please describe for each unit, any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the part or still be occurring.

   Please provide the following information

   a. Date of release
   b. Type of waste released
   c. Quantity or volume of waste released
   d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)

4. In regard to the prior releases described in Number 3 above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or groundwater.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the submittal is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (42 U.S.C. 6902 et seq. and 40 CFR 270.11(d))

Gerald J. Wittbrodt, Supervisor
Typed Name and Title

Plant Safety & Environmental Engineering

Signature

May 8, 1985
Date